

**BEST AVAILABLE COPY****AUG 15 2006****PATENT****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In Re Application of:

William Paul Schmidt

Serial No.: 10/621,131

Group Art Unit: 2872

Filed: July 16, 2003

Examiner: Mark A. Robinson

For: REMOTE CONTROLLED CROSSOVER MIRROR

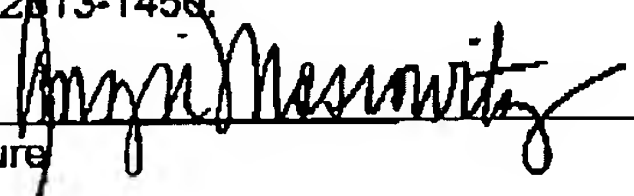
Attorney Docket No.: ML 0166 PUS

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Sir:

The following Appeal Brief is submitted pursuant to the Notice of Appeal filed on July 10, 2006, the two-month date expiring on September 10, 2006, for the above-identified application.

**I. Real Party in Interest**

The real party in interest in this matter is Mirror Lite Company organized under the laws of the State of Michigan and having its principal place of business in Rockwood, Michigan (hereinafter "Mirror Lite").

**II. Related Appeals and Interferences**

There are no other known appeals or interferences that will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

**III. Status of the Claims**

Claims 1-3, 6 and 7 stand rejected in the Final Office Action as being unpatentable over Englander (U.S. Patent No. 6,636,822) in view of either Foster (U.S. Patent No. 2,877,686) or Bateman (U.S. Patent No. 3,610,736) and are presented in this appeal. A copy of the claims on appeal (claims 1-3, 6 and 7) is attached as an Appendix.

**IV. Status of Amendments**

An amendment was filed May 19, 2006, within the two-month period so as to invoke an advisory action. The amendment was entered but the Examiner determined that Applicants' arguments did not place the application in condition for allowance because the final rejection.

**V. Summary of Claimed Subject Matter**

The present invention relates generally to an electronically controlled crossover mirror assembly for mounting on an exterior front surface of a vehicle, the crossover mirror assembly meeting a particular forward, rightward and leftward visual orientation in front of school buses as mandated by Federal Motor Vehicle

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Safety Standard 111. The crossover mirror according to a preferred embodiment of the present invention as claimed in independent claim 1 is described in paragraphs [0022] through [0035] and Figures 1-6 of the originally filed specification.

The crossover mirror in accordance with claim 1 includes an elongate, arcuate mirror 26 having a reflective surface 46 with a generally convex shape throughout. The mirror 26 is mounted in a frame 28 having a curved back plate 30 and turned in edges 32. The edges 32 are turned over the edges of the mirror 26 with a suitable vinyl or rubber layer 34 there between. The mounting support 18 extends within a tubular portion 40 of the curved back plate 30 and is secured to a mounting clamp 52 via a bolt 54 or some other suitable fixation device. The mounting clamp 52 is preferably a plastic material such as nylon and has a base portion 54 that seats an electronic actuator 56. An electronic actuator 56 is seated on top of the tubular portion 40. Brackets 36 are affixed to the curved back plate 30 and extend outwardly in generally parallel relationship where they receive a bolt 38 that couples the brackets 36 to the electronic actuator 56. The electronic actuator 56 is coupled to an electronic controller 58 contained within the cab area 17 of the vehicle 10 via electric leads 60. The leads 60 are preferably extended through the hollow mounting support 20 and within the hood 12 of the vehicle 10 to the cab area 17. The electronic controller 58 is contained within the dashboard region of the cab area 17 and within easy access of the driver of the vehicle 10.

Each mirror assembly 22, 24 is mounted to the respective fender 14, 16 so that the reflective surface 46 has a fixed up and down visual orientation (along the y-axis or vertical adjustment). However, through use of the coupled electronic controller 58 and electronic actuator 56, complete electronic adjustment of the mirror assembly 22 rightward or leftward (corresponding to a counterclockwise or clockwise adjustment, (i.e., horizontal adjustment) of the mirror assembly 22) is obtained by the operator within the cab area 17 without the need for external assistance. This allows complete field of vision to the area in front and to the side of the bus 10 for any vehicle operator. To accomplish this counterclockwise or clockwise adjustment about a horizontal plane, the electronic controller 58 is used by the operator in the

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cab area 17 to control the electronic actuator 56 that adjusts the mirror assembly 22, 24 in a rightward and leftward direction.

The electronic actuator 56 describes any type of remotely controllable electronic motor that can swivel, or otherwise rotate, clockwise or counterclockwise about a horizontal plane about a fixed vertical center point 60 as will be understood by one of skill in the art. One preferred electronic actuator 56 and electronic controller 58 combination that meets these requirements is a servomotor 56 (claim 3) electronically coupled to a toggle switch 92 (claim 2). Another preferred electronic actuator 56 that may be used is a stepper motor electronically coupled to an appropriate controller such as a dial controller 158.

Specifically, with respect to independent claim 1, the elements described in the preamble, namely "A crossover mirror assembly for mounting on an exterior front surface of a vehicle, the vehicle having a cab region, the crossover mirror assembly meeting a particular forward, rightward and leftward visual orientation in front of school buses as mandated by Federal Motor Vehicle Safety Standard 111" are specifically called out in various places in the specification; as motor vehicle or school bus (page 6, paragraph [0022], line 1 and Figure 1); exterior front surface (page 6, paragraph [0022], lines 2-5 and Figure 1); cab region (page 6, paragraph [0022], line 8 and Figure 1); crossover mirror assemblies (page 6, paragraph [0023], lines 4-12 and Figures 1-6) and FMVSS 1111 (page 1, paragraph [0011], line 1 – page 2, paragraph [0011], line 12).

The first element of claim 1, namely "an arcuate mirror having a reflective surface" is disclosed on page 6, paragraph [0024], lines 3-6 and Figures 2-5).

The second element of claim 1, namely "a frame coupled to said arcuate mirror, said frame having a tubular region, said tubular region defining a center point" is disclosed on page 6, paragraph [0024], line 7-page 7, paragraph [0025], line 7, page 8, paragraph [0030], lines 1-8; and Figures 2-5.

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The third element of claim 1, namely "a mirror mounting support coupled within said tubular region and to the exterior front surface of the vehicle" is disclosed on page 6, paragraph [0023], lines 1-3 and in Figure 1.

The fourth element of claim 1, namely "an electronic actuator coupled to said arcuate mirror, said electronic actuator being actuated to swivel said arcuate mirror along an x-axis and about said center point" is disclosed on page 7, paragraph [0026], lines 1-2 and page 7, paragraph [0028], line 4-page 8, paragraph [0028] line 5 and in Figures 4-5.

The fifth element of claim 1, namely "an electronic controller electrically coupled to said electronic actuator and contained within the cab region, said electronic controller controlling the actuation of said electronic actuator to move said arcuate mirror clockwise or counterclockwise along a horizontal plane about said center point" is disclosed on page 7, paragraph [0027], line 1-page 8, paragraph [0029], line 6 and in Figures 2 and 6.

#### **VI. Grounds of Rejection to be Reviewed on Appeal**

The following issues are presented in this appeal, each of which corresponds directly to the Examiner's final grounds for rejection and the Final Office Action dated July 6, 2005, and in the Advisory Action dated September 20, 2005:

- (a) Whether claims 12-17, 19 and 21 are patentable under 35 U.S.C. §103(a) over Englander (U.S. Patent No. 6,636,822) in view of either Foster (U.S. Patent No. 2,877,686) or Bateman (U.S. Patent No. 3,610,736)?

#### **VII. Argument**

##### **THE REJECTION OF CLAIMS 1-3 and 6-7 UNDER 35 U.S.C. §103(a)**

Claims 1-3, 6 and 7 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Englander (U.S. Patent No. 6,636,822) in view of either Foster (U.S. Patent No. 2,877,686) or Bateman (U.S. Patent No. 3,610,736). Applicants

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respectfully traverse the Examiner's rejection. Each claim will be addressed separately below:

In his Response to the Arguments Section, the Examiner makes several inaccurate or otherwise misleading statements. First, the Examiner states that Applicant did not specifically traverse the motivation to combine either Foster or Bateman with Englander. Applicant respectfully disagrees, and points the Examiner to the final paragraph of the response, in which the Applicant noted: "there is no motivation to modify Englander to include an electronic actuator and electronic controller system, contrary to the Examiner's position, because it serves no useful purpose in certifying regulatory compliance." To the extent that this is not a specific traversal, Applicant respectfully states herein that Applicant specifically traverses the Examiner determination that there is motivation to combine the references.

In addition, the Examiner states that there is "no requirement that motivation to combine the teaching of references be found in the primary reference." However, Section 2143 of the Manual of Patent Examination and Procedure specifically states that "First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to those of ordinary skill in the art, to modify the reference or to combine reference teachings." Thus, contrary to the Examiner's position, there is a requirement that motivate must be found to coming any reference teaching, including the primary reference.

Moreover, the Examiner has repeatedly mischaracterized what is a properly combinable reference for motivational purposes. Section 2143.01 teaches that there are three possible sources for motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of person of ordinary skill in the art. *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998).

In applying the law to the facts in this case, one must first examine the nature of the problem in Englander, namely certifying mirror compliance using artificial visualization. Englander is not concerned about the particular configuration of the mirror, the mirror support structure, and/or whether the mirror is electronically



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adjustable from inside the cab of the school bus. Englander is merely concerned with testing whatever type mirror assembly is provided, via artificial visualization, to ensure regulatory compliance with a predetermination certification standard. It matters not to the invention of Englander whether the mirror is a crossview mirror, a rearview mirror, a side mirror, or an electronically-controlled version of any of these mirrors, it only matters that whatever configuration of mirror is being tested according to the method of Englander to see if it meets a particular predetermined mirror mounting and visual orientation standard. Further, and most important to this inquiry, it does not matter if, much less how, the mirror is moveable, much less moveable using electronic control. Englander is only concerned with testing the mirror in its present configuration. Thus for the Examiner to take the monumental leap to "solve" a problem that is not present in Englander is inappropriate. Contrary to the Examiner's conclusion, there is no motivation to add an electronic control element to the software based mirror testing method taught in Englander, and therefore the Examiner has not proven the first possible source for motivation as required in *In re Rouffet*.

With regards to the second and third source of motivation discussed in *In re Rouffet*, the Examiner state support for motivation to combine would be that "motorized adjustment of the mirror is more convenient and quicker than manual adjustment." Applicant notes that "[W]here the references teach every element of the claimed invention, however without the motivation to combine, a rejection based on a *prima facie* case of obviousness was held improper. *In re Rouffet*, at 1357. Englander, as stated above, is directed to a method for testing mirrors, not to the inner workings or manipulation of the mirrors, and as such any modification that would be properly combinable should be directed towards improvements to the method, not to improvements to the mirror structure itself. Thus, even though the combination of Englander with either Foster or Bateman teaches all the elements, and can be combined to form the present invention by one of skill in the art, these facts are insufficient to support a *prima facie* case of obviousness in the absence of motivation to combine the references. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990); *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). As stated above, there is no motivation to alter Englander with either Foster or Bateman to arrive at

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the present invention, and thus the Examiner has failed to establish a *prima facie* case of obviousness to support the rejection of claims 1-3, 6 and 7. While adding motorized control may be "convenient and "quicker," this is not the test for determining motivation to combine. Proper combinable references to Englander would be directed to improving the visualization method, not to providing a more convenient way to move a mirror during the certification process (where a method is available). Reconsideration of these claims 1-3, 6 and 7 is respectfully requested.

### Claim 1

On April 11, 2006, the Examiner rejected Claim 1 under 35 U.S.C. 103(a) as being unpatentable over Englander (U.S. Patent No. 6,636,822) in view of either Foster (U.S. Patent No. 2,877,686) or Bateman (U.S. Patent No. 3,610,736). Applicant traversed the Examiner's rejection as stated in the following paragraphs:

Section 2143 of the Manual of Patent Examining Procedure states that three basic criteria must be met for establishing a *prima facie* case of obviousness, stating:

"First, there must some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach all of the claim limitations."

"If the Examiner does not establish a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness." Section 2142 MPEP, ch. 2100, p. 110. "When the references cited by the Examiner fail to establish a *prima facie* case of obviousness, the rejection is improper and will be overturned."<sup>1</sup> One cannot use hindsight reconstruction, picking and choosing among isolated disclosures in the prior art, to deny that the claimed invention is unobvious.<sup>2</sup>

Here, the Examiner has not established a *prima facie* case of obviousness because the prior art references do not teach all the claim limitations of claim 1.

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<sup>1</sup> *In re Ochiai*, 71 F.3d 1565, 37 U.S.P.Q.2d 1127 (Fed. Cir. 1995), *citing In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).



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Englander discloses a method and system for facilitating the certification process (i.e. the regulatory compliance) for school bus mirrors, including crossover mirrors, using artificial visualization. That method allegedly qualifies and certifies the field of view coverage of mirror systems for compliance with predetermined criteria. One step in the method involves adding a definition and location of a prototype mirror, including data that defines the shape of the prototype mirror.

In conjunction with describing the method, Englander does show what appears to be a crossview mirror assembly. As the Examiner acknowledges, the mirror shown in Englander in Figures 2 and 3 does not include an electronic actuator coupled to the arcuate mirror, nor does Englander disclose an electronic controller coupled to the electronic actuator and contained within the cab region, wherein the electronic controller controls the actuation of said electronic actuator to move said arcuate mirror clockwise or counterclockwise along a horizontal plane about said center point. The electronic actuator and electronic controller are both elements of claims 1-3, and 6-7.

In the Office Communication dated April 11, 2006, the Examiner also maintains that Englander discloses "an arcuate mirror (mirror 22 is clearly arcuate due to the shown distortion) with frame and mounting support (clearly shown in Figure 3) coupled to the front of the vehicle." However, there are additional elements to claim 1 that are not shown or described in sufficient detail in Englander to compare to the claimed elements of claim 1. This is because the mirror itself is not described in any detail in the specification of Englander to coincide with Figure 3. Specifically, it is unclear from the Figures in Englander as to whether the mirror discloses a frame having a tubular region, wherein the tubular region defines a center point. In addition, it is unclear whether the mirror in Englander discloses a mirror mounting support coupled within said tubular region and to the exterior front surface of the vehicle. The Examiner expresses no opinion as to whether these elements are described in Foster or Bateman. However, because Foster and

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<sup>2</sup> In re Fine, 837 F.2d at 1075.

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Batemen do not describe a crossview mirror, but instead disclose rear view mirrors. Applicant states that neither reference discloses a frame having a tubular region, wherein the tubular region defines a center point, and further wherein the mirror mounting support is coupled within the tubular region and to the exterior front surface of the vehicle. Thus, because the combination of Englander, Foster and Batemen does not disclose all of the elements of claim 1, the Examiner has failed to prove the third prong of the obviousness test in accordance with MPEP 2143 to establish a *prima facie* case of obviousness, and thus the rejection of claim 1 is improper and must be overturned.

Further, the Examiner has not established a *prima facie* case of obviousness because there is no motivation or suggestion in Englander to combine the teachings of Englander with either those of Foster or Bateman as the Examiner proposes. Englander is not concerned about the particular configuration of the mirror, the mirror support structure, and/or whether the mirror is electronically adjustable from inside the cab of the school bus. Englander is merely concerned with testing whatever type mirror assembly is provided, via artificial visualization, to ensure regulatory compliance with a predetermination certification standard. It matters not to the invention of Englander whether the mirror is a crossview mirror, a rearview mirror, a side mirror, or an electronically-controlled version of any of these mirrors, it only matters that whatever configuration of mirror is being tested according to the method of Englander to see if it meets a particular predetermined mirror mounting and visual orientation standard. Therefore, there is no motivation to modify Englander to include an electronic actuator and electronic controller system, contrary to the Examiner's position, because it serves no useful purpose in certifying regulatory compliance. For this reason alone, the rejection is improper and must be overturned.

In his Response to the Arguments Section in the April 11, 2006 Office Action, the Examiner made several inaccurate or otherwise misleading statements. First, the Examiner stated that Applicant did not specifically traverse the motivation to combine either Foster or Bateman with Englander. Applicant respectfully disagreed, and pointed the Examiner to the final paragraph of their previous response, in which

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the Applicant noted: "there is no motivation to modify Englander to include an electronic actuator and electronic controller system, contrary to the Examiner's position, because it serves no useful purpose in certifying regulatory compliance." To the extent that this was not a specific traversal, Applicant respectfully states herein that Applicant specifically traversed the Examiner determination that there is motivation to combine the references.

In addition, the Examiner stated that there is "no requirement that motivation to combine the teaching of references be found in the primary reference." However, Section 2143 of the Manual of Patent Examination and Procedure specifically states that "First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to those of ordinary skill in the art, to modify the reference or to combine reference teachings." Thus, contrary to the Examiner's position, there is a requirement that motivate must be found to combine any reference teaching, including the primary reference.

Moreover, the Examiner has repeatedly mischaracterized what is a properly combinable reference for motivational purposes. Section 2143.01 teaches that there are three possible sources for motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of person of ordinary skill in the art. *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998).

In applying the law to the facts in this case, one must first examine the nature of the problem in Englander, namely certifying mirror compliance using artificial visualization. Englander is not concerned about the particular configuration of the mirror, the mirror support structure, and/or whether the mirror is electronically adjustable from inside the cab of the school bus. Englander is merely concerned with testing whatever type mirror assembly is provided, via artificial visualization, to ensure regulatory compliance with a predetermination certification standard. It matters not to the invention of Englander whether the mirror is a crossview mirror, a rearview mirror, a side mirror, or an electronically-controlled version of any of these mirrors, it only matters that whatever configuration of mirror is being tested according to the method of Englander to see if it meets a particular predetermined mirror

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mounting and visual orientation standard. Further, and most important to this inquiry, it does not matter if, much less how, the mirror is moveable, much less moveable using electronic control. Englander is only concerned with testing the mirror in its present configuration. Thus for the Examiner to take the monumental leap to "solve" a problem that is not present in Englander is inappropriate. Contrary to the Examiner's conclusion, there is no motivation to add an electronic control element to the software based mirror testing method taught in Englander, and therefore the Examiner has not proven the first possible source for motivation as required in *In re Rouffet*.

With regards to the second and third source of motivation discussed in *In re Rouffet*, the Examiner stated support for motivation to combine would be that "motorized adjustment of the mirror is more convenient and quicker than manual adjustment." Applicant previously noted that "[W]here the references teach every element of the claimed invention, however without the motivation to combine, a rejection based on a *prima facie* case of obviousness was held improper. *In re Rouffet*, at 1357. Englander, as stated above, is directed to a method for testing mirrors, not to the inner workings or manipulation of the mirrors, and as such any modification that would be properly combinable should be directed towards improvements to the method, not to improvements to the mirror structure itself. Thus, even if the combination of Englander with either Foster or Bateman teaches all the elements, which we don't agree with as stated above, and even if the references can be combined to form the present invention by one of skill in the art, these facts are insufficient to support a *prima facie* case of obviousness in the absence of motivation to combine the references. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990); *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). As stated above, there is no motivation to alter Englander with either Foster or Bateman to arrive at the present invention, and thus the Examiner has failed to establish a *prima facie* case of obviousness to support the rejection of claim 1. While adding motorized control may be "convenient and "quicker," this is not the test for determining motivation to combine. Proper combinable references to Englander would be directed to improving the visualization method, not to providing a more convenient

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way to move a mirror during the certification 1 was once again respectfully requested.

In response to these arguments, on May 26, 2006, the Examiner indicated that the Applicant's arguments did not place the application in condition for allowance. The Examiner stated that: "the motivation to provide a vehicle mirror such as that shown in Englander with a motor to control the mirror's adjustment is found in either the secondary references or in the knowledge available to one having ordinary skill in the art who clearly recognizes the advantages of motorized adjustment." The Examiner further stated that his "specific reliance on Englander for showing the mirror design was primarily because of the explicit disclosure of compliance with this safety standard ("FMVSS 111")." The Examiner has once again, however, failed to establish any basis for utilizing Englander as an obviating reference in which to invalidate claim 1 of the present invention. Further, as discussed above, the combination of Englander, Bateman and Foster does not disclose all of the elements of claim 1 of the present invention.

Thus, the Examiner has not proven any of the three requirements for establishing a *prima facie* case of obviousness as required by MPEP 2143. As such, the rejection of claim 1 must be overturned. Reconsideration of claim 1 is respectfully requested.

#### Claim 2

Claim 2 is a dependent claim of claim 1 that further limits the electronic controller to a servometer.

For reasons stated with respect to amended claim 1, which are incorporated herein, the combination of Englander, Bateman and Foster does not disclose all of the elements of claim 2 of the present invention, and thus the Examiner has not proven the third requirement for establishing a *prima facie* case of obviousness as required by MPEP 2143. Moreover, even if the disclosed references did teach all the elements, which the Applicants strongly disagree has been taught, the Examiner has failed to establish the first two requirements for establishing a *prima facie* case of



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obviousness, namely that there is motivation to combine the references as the Examiner proposes and that there is a reasonable expectation of success in combining the references to form the present invention as in claim 2. Reconsideration of claim 2 is thus respectfully requested.

### Claim 3

Claim 3 is a dependent claim of claim 1 that further limits the electronic controller to a toggle switch type controller.

For reasons stated with respect to amended claim 1, which are incorporated herein, the combination of Englander, Bateman and Foster does not disclose all of the elements of claim 3 of the present invention, and thus the Examiner has not proven the third requirement for establishing a *prima facie* case of obviousness as required by MPEP 2143. Moreover, even if the disclosed references did teach all the elements, which the Applicants strongly disagree has been taught, the Examiner has failed to establish the first two requirements for establishing a *prima facie* case of obviousness, namely that there is motivation to combine the references as the Examiner proposes and that there is a reasonable expectation of success in combining the references to form the present invention as in claim 3. Reconsideration of claim 3 is thus respectfully requested.

### Claim 6

Claim 6 is a dependent claim of claim 1 that further limits claim 1 wherein the arcuate mirror is limited in rotation about said center point to a predetermined angle relative to a centered position, wherein said predetermined angle is defined as a comparison of a relative orientation of said arcuate mirror at a first position as compared with said centered position, said first position corresponding to a clockwise-most allowable position or to a counterclockwise-most allowable position of said arcuate mirror, said centered position located midway between said clockwise-most allowable position and said counterclockwise-most allowable position along a horizontal plane.



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For reasons stated with respect to amended claim 1, which are incorporated herein, the combination of Englander, Bateman and Foster does not disclose all of the elements of claim 6 of the present invention, and thus the Examiner has not proven the third requirement for establishing a *prima facie* case of obviousness as required by MPEP 2143. Moreover, even if the disclosed references did teach all the elements, which the Applicants strongly disagree has been taught, the Examiner has failed to establish the first two requirements for establishing a *prima facie* case of obviousness, namely that there is motivation to combine the references as the Examiner proposes and that there is a reasonable expectation of success in combining the references to form the present invention as in claim 6. Reconsideration of claim 6 is thus respectfully requested.

#### **Claim 7**

Claim 7 is a dependent claim of claim 6 that further limits the rotation of the arcuate mirror to a predetermined angle is not greater than approximately 45 degrees counterclockwise or clockwise from said centered position.

For reasons stated with respect to amended claim 1, which are incorporated herein, the combination of Englander, Bateman and Foster does not disclose all of the elements of claim 7 of the present invention, and thus the Examiner has not proven the third requirement for establishing a *prima facie* case of obviousness as required by MPEP 2143. Moreover, even if the disclosed references did teach all the elements, which the Applicants strongly disagree has been taught, the Examiner has failed to establish the first two requirements for establishing a *prima facie* case of obviousness, namely that there is motivation to combine the references as the Examiner proposes and that there is a reasonable expectation of success in combining the references to form the present invention as in claim 7. Reconsideration of claim 7 is thus respectfully requested.

#### **VIII. Claims Appendix**

A copy of each of the claims involved in this appeal, namely claims 1-3, 6 and 7 is attached hereto as Appendix A.

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**IX. Evidence Appendix**

None.

**X. Related Proceedings Appendix**

None.

**X. Conclusion**

For the foregoing reasons, Applicant respectfully requests that the Board direct the Examiner in charge of this examination to withdraw the rejections and pass claims 1-3, 6 and 7 to issuance.

**ARTZ & ARTZ, P.C.**By: 

Steven W. Hays

Reg. No. 41,823

28333 Telegraph Road, Suite 250

Southfield, MI 48034

(248) 223-9500

Dated: August 15, 2006

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**APPENDIX A**

1. A crossover mirror assembly for mounting on an exterior front surface of a vehicle, the vehicle having a cab region, the crossover mirror assembly meeting a particular forward, rightward and leftward visual orientation in front of school buses as mandated by Federal Motor Vehicle Safety Standard 111 and comprising:

an arcuate mirror having a reflective surface;

a frame coupled to said arcuate mirror, said frame having a tubular region, said tubular region defining a center point;

a mirror mounting support coupled within said tubular region and to the exterior front surface of the vehicle;

an electronic actuator coupled to said arcuate mirror, said electronic actuator being actuated to swivel said arcuate mirror along an x-axis and about said center point; and

an electronic controller electrically coupled to said electronic actuator and contained within the cab region, said electronic controller controlling the actuation of said electronic actuator to move said arcuate mirror clockwise or counterclockwise along a horizontal plane about said center point.

2. The crossover mirror assembly of claim 1, wherein said electronic actuator comprises a servomotor.

3. The crossover mirror assembly of claim 2, wherein said electronic controller comprises a toggle switch type controller.

6. The crossover mirror assembly of claim 1, wherein said arcuate mirror is limited in rotation about said center point to a predetermined angle relative to a centered position, wherein said predetermined angle is defined as a comparison of a relative orientation of said arcuate mirror at a first position as compared with said centered position, said first position corresponding to a clockwise-most allowable position or to a counterclockwise-most allowable position of said arcuate mirror, said centered position located midway between said

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clockwise-most allowable position and said counterclockwise-most allowable position along a horizontal plane.

7. The crossover mirror assembly of claim 6, wherein said predetermined angle is not greater than approximately 45 degrees counterclockwise or clockwise from said centered position.

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In Re Application of:

William Paul Schmidt

Serial No.: 10/621,131

Group Art Unit: 2872

Filed: July 16, 2003

Examiner: Mark A. Robinson

For: REMOTE CONTROLLED CROSSOVER MIRROR

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Angie Moscowitz

Date: August 15, 2006

**BRIEF ON APPEAL**Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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Sir:

The following Appeal Brief is submitted pursuant to the Notice of Appeal filed on July 10, 2006, the two-month date expiring on September 10, 2006, for the above-identified application.

**I. Real Party in Interest**

The real party in interest in this matter is Mirror Lite Company organized under the laws of the State of Michigan and having its principal place of business in Rockwood, Michigan (hereinafter "Mirror Lite").

**II. Related Appeals and Interferences**

There are no other known appeals or interferences that will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

**III. Status of the Claims**

Claims 1-3, 6 and 7 stand rejected in the Final Office Action as being unpatentable over Englander (U.S. Patent No. 6,636,822) in view of either Foster (U.S. Patent No. 2,877,686) or Bateman (U.S. Patent No. 3,610,736) and are presented in this appeal. A copy of the claims on appeal (claims 1-3, 6 and 7) is attached as an Appendix.

**IV. Status of Amendments**

An amendment was filed May 19, 2006, within the two-month period so as to invoke an advisory action. The amendment was entered but the Examiner determined that Applicants' arguments did not place the application in condition for allowance because the final rejection.

**V. Summary of Claimed Subject Matter**

The present invention relates generally to an electronically controlled crossover mirror assembly for mounting on an exterior front surface of a vehicle, the crossover mirror assembly meeting a particular forward, rightward and leftward visual orientation in front of school buses as mandated by Federal Motor Vehicle



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Safety Standard 111. The crossover mirror according to a preferred embodiment of the present invention as claimed in independent claim 1 is described in paragraphs [0022] through [0035] and Figures 1-6 of the originally filed specification.

The crossover mirror in accordance with claim 1 includes an elongate, arcuate mirror 26 having a reflective surface 46 with a generally convex shape throughout. The mirror 26 is mounted in a frame 28 having a curved back plate 30 and turned in edges 32. The edges 32 are turned over the edges of the mirror 26 with a suitable vinyl or rubber layer 34 there between. The mounting support 18 extends within a tubular portion 40 of the curved back plate 30 and is secured to a mounting clamp 52 via a bolt 54 or some other suitable fixation device. The mounting clamp 52 is preferably a plastic material such as nylon and has a base portion 54 that seats an electronic actuator 56. An electronic actuator 56 is seated on top of the tubular portion 40. Brackets 36 are affixed to the curved back plate 30 and extend outwardly in generally parallel relationship where they receive a bolt 38 that couples the brackets 36 to the electronic actuator 56. The electronic actuator 56 is coupled to an electronic controller 58 contained within the cab area 17 of the vehicle 10 via electric leads 60. The leads 60 are preferably extended through the hollow mounting support 20 and within the hood 12 of the vehicle 10 to the cab area 17. The electronic controller 58 is contained within the dashboard region of the cab area 17 and within easy access of the driver of the vehicle 10.

Each mirror assembly 22, 24 is mounted to the respective fender 14, 16 so that the reflective surface 46 has a fixed up and down visual orientation (along the y-axis or vertical adjustment). However, through use of the coupled electronic controller 58 and electronic actuator 56, complete electronic adjustment of the mirror assembly 22 rightward or leftward (corresponding to a counterclockwise or clockwise adjustment, (i.e., horizontal adjustment) of the mirror assembly 22) is obtained by the operator within the cab area 17 without the need for external assistance. This allows complete field of vision to the area in front and to the side of the bus 10 for any vehicle operator. To accomplish this counterclockwise or clockwise adjustment about a horizontal plane, the electronic controller 58 is used by the operator in the

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cab area 17 to control the electronic actuator 56 that adjusts the mirror assembly 22, 24 in a rightward and leftward direction.

The electronic actuator 56 describes any type of remotely controllable electronic motor that can swivel, or otherwise rotate, clockwise or counterclockwise about a horizontal plane about a fixed vertical center point 60 as will be understood by one of skill in the art. One preferred electronic actuator 56 and electronic controller 58 combination that meets these requirements is a servomotor 56 (claim 3) electronically coupled to a toggle switch 92 (claim 2). Another preferred electronic actuator 56 that may be used is a stepper motor electronically coupled to an appropriate controller such as a dial controller 158.

Specifically, with respect to independent claim 1, the elements described in the preamble, namely "A crossover mirror assembly for mounting on an exterior front surface of a vehicle, the vehicle having a cab region, the crossover mirror assembly meeting a particular forward, rightward and leftward visual orientation in front of school buses as mandated by Federal Motor Vehicle Safety Standard 111" are specifically called out in various places in the specification; as motor vehicle or school bus (page 6, paragraph [0022], line 1 and Figure 1); exterior front surface (page 6, paragraph [0022], lines 2-5 and Figure 1); cab region (page 6, paragraph [0022], line 8 and Figure 1); crossover mirror assemblies (page 6, paragraph [0023], lines 4-12 and Figures 1-6) and FMVSS 1111 (page 1, paragraph [0011], line 1 – page 2, paragraph [0011], line 12).

The first element of claim 1, namely "an arcuate mirror having a reflective surface" is disclosed on page 6, paragraph [0024], lines 3-6 and Figures 2-5).

The second element of claim 1, namely "a frame coupled to said arcuate mirror, said frame having a tubular region, said tubular region defining a center point" is disclosed on page 6, paragraph [0024], line 7-page 7, paragraph [0025], line 7, page 8, paragraph [0030], lines 1-8; and Figures 2-5.

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The third element of claim 1, namely "a mirror mounting support coupled within said tubular region and to the exterior front surface of the vehicle" is disclosed on page 6, paragraph [0023], lines 1-3 and in Figure 1.

The fourth element of claim 1, namely "an electronic actuator coupled to said arcuate mirror, said electronic actuator being actuated to swivel said arcuate mirror along an x-axis and about said center point" is disclosed on page 7, paragraph [0026], lines 1-2 and page 7, paragraph [0028], line 4-page 8, paragraph [0028] line 5 and in Figures 4-5.

The fifth element of claim 1, namely "an electronic controller electrically coupled to said electronic actuator and contained within the cab region, said electronic controller controlling the actuation of said electronic actuator to move said arcuate mirror clockwise or counterclockwise along a horizontal plane about said center point" is disclosed on page 7, paragraph [0027], line 1-page 8, paragraph [0029], line 6 and in Figures 2 and 6.

#### **VI. Grounds of Rejection to be Reviewed on Appeal**

The following issues are presented in this appeal, each of which corresponds directly to the Examiner's final grounds for rejection and the Final Office Action dated July 6, 2005, and in the Advisory Action dated September 20, 2005:

- (a) Whether claims 12-17, 19 and 21 are patentable under 35 U.S.C. §103(a) over Englander (U.S. Patent No. 6,636,822) in view of either Foster (U.S. Patent No. 2,877,686) or Bateman (U.S. Patent No. 3,610,736)?

#### **VII. Argument**

##### **THE REJECTION OF CLAIMS 1-3 and 6-7 UNDER 35 U.S.C. §103(a)**

Claims 1-3, 6 and 7 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Englander (U.S. Patent No. 6,636,822) in view of either Foster (U.S. Patent No. 2,877,686) or Bateman (U.S. Patent No. 3,610,736). Applicants

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respectfully traverse the Examiner's rejection. Each claim will be addressed separately below:

In his Response to the Arguments Section, the Examiner makes several inaccurate or otherwise misleading statements. First, the Examiner states that Applicant did not specifically traverse the motivation to combine either Foster or Bateman with Englander. Applicant respectfully disagrees, and points the Examiner to the final paragraph of the response, in which the Applicant noted: "there is no motivation to modify Englander to include an electronic actuator and electronic controller system, contrary to the Examiner's position, because it serves no useful purpose in certifying regulatory compliance." To the extent that this is not a specific traversal, Applicant respectfully states herein that Applicant specifically traverses the Examiner determination that there is motivation to combine the references.

In addition, the Examiner states that there is "no requirement that motivation to combine the teaching of references be found in the primary reference." However, Section 2143 of the Manual of Patent Examination and Procedure specifically states that "First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to those of ordinary skill in the art, to modify the reference or to combine reference teachings." Thus, contrary to the Examiner's position, there is a requirement that motivate must be found to coming any reference teaching, including the primary reference.

Moreover, the Examiner has repeatedly mischaracterized what is a properly combinable reference for motivational purposes. Section 2143.01 teaches that there are three possible sources for motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of person of ordinary skill in the art. *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998).

In applying the law to the facts in this case, one must first examine the nature of the problem in Englander, namely certifying mirror compliance using artificial visualization. Englander is not concerned about the particular configuration of the mirror, the mirror support structure, and/or whether the mirror is electronically

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adjustable from inside the cab of the school bus. Englander is merely concerned with testing whatever type mirror assembly is provided, via artificial visualization, to ensure regulatory compliance with a predetermination certification standard. It matters not to the invention of Englander whether the mirror is a crossview mirror, a rearview mirror, a side mirror, or an electronically-controlled version of any of these mirrors, it only matters that whatever configuration of mirror is being tested according to the method of Englander to see if it meets a particular predetermined mirror mounting and visual orientation standard. Further, and most important to this inquiry, it does not matter if, much less how, the mirror is moveable, much less moveable using electronic control. Englander is only concerned with testing the mirror in its present configuration. Thus for the Examiner to take the monumental leap to "solve" a problem that is not present in Englander is inappropriate. Contrary to the Examiner's conclusion, there is no motivation to add an electronic control element to the software based mirror testing method taught in Englander, and therefore the Examiner has not proven the first possible source for motivation as required in *In re Rouffet*.

With regards to the second and third source of motivation discussed in *In re Rouffet*, the Examiner state support for motivation to combine would be that "motorized adjustment of the mirror is more convenient and quicker than manual adjustment." Applicant notes that "[W]here the references teach every element of the claimed invention, however without the motivation to combine, a rejection based on a *prima facie* case of obviousness was held improper. *In re Rouffet*, at 1357. Englander, as stated above, is directed to a method for testing mirrors, not to the inner workings or manipulation of the mirrors, and as such any modification that would be properly combinable should be directed towards improvements to the method, not to improvements to the mirror structure itself. Thus, even though the combination of Englander with either Foster or Bateman teaches all the elements, and can be combined to form the present invention by one of skill in the art, these facts are insufficient to support a *prima facie* case of obviousness in the absence of motivation to combine the references. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990); *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). As stated above, there is no motivation to alter Englander with either Foster or Bateman to arrive at



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the present invention, and thus the Examiner has failed to establish a *prima facie* case of obviousness to support the rejection of claims 1-3, 6 and 7. While adding motorized control may be "convenient and "quicker," this is not the test for determining motivation to combine. Proper combinable references to Englander would be directed to improving the visualization method, not to providing a more convenient way to move a mirror during the certification process (where a method is available). Reconsideration of these claims 1-3, 6 and 7 is respectfully requested.

### Claim 1

On April 11, 2006, the Examiner rejected Claim 1 under 35 U.S.C. 103(a) as being unpatentable over Englander (U.S. Patent No. 6,636,822) in view of either Foster (U.S. Patent No. 2,877,686) or Bateman (U.S. Patent No. 3,610,736). Applicant traversed the Examiner's rejection as stated in the following paragraphs:

Section 2143 of the Manual of Patent Examining Procedure states that three basic criteria must be met for establishing a *prima facie* case of obviousness, stating:

"First, there must some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach all of the claim limitations."

"If the Examiner does not establish a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness." Section 2142 MPEP, ch. 2100, p. 110. "When the references cited by the Examiner fail to establish a *prima facie* case of obviousness, the rejection is improper and will be overturned."<sup>1</sup> One cannot use hindsight reconstruction, picking and choosing among isolated disclosures in the prior art, to deny that the claimed invention is unobvious.<sup>2</sup>

Here, the Examiner has not established a *prima facie* case of obviousness because the prior art references do not teach all the claim limitations of claim 1.

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<sup>1</sup> *In re Ochial*, 71 F.3d 1565, 37 U.S.P.Q.2d 1127 (Fed. Cir. 1995), citing *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).



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Englander discloses a method and system for facilitating the certification process (i.e. the regulatory compliance) for school bus mirrors, including crossover mirrors, using artificial visualization. That method allegedly qualifies and certifies the field of view coverage of mirror systems for compliance with predetermined criteria. One step in the method involves adding a definition and location of a prototype mirror, including data that defines the shape of the prototype mirror.

In conjunction with describing the method, Englander does show what appears to be a crossview mirror assembly. As the Examiner acknowledges, the mirror shown in Englander in Figures 2 and 3 does not include an electronic actuator coupled to the arcuate mirror, nor does Englander disclose an electronic controller coupled to the electronic actuator and contained within the cab region, wherein the electronic controller controls the actuation of said electronic actuator to move said arcuate mirror clockwise or counterclockwise along a horizontal plane about said center point. The electronic actuator and electronic controller are both elements of claims 1-3, and 6-7.

In the Office Communication dated April 11, 2006, the Examiner also maintains that Englander discloses "an arcuate mirror (mirror 22 is clearly arcuate due to the shown distortion) with frame and mounting support (clearly shown in Figure 3) coupled to the front of the vehicle." However, there are additional elements to claim 1 that are not shown or described in sufficient detail in Englander to compare to the claimed elements of claim 1. This is because the mirror itself is not described in any detail in the specification of Englander to coincide with Figure 3. Specifically, it is unclear from the Figures in Englander as to whether the mirror discloses a frame having a tubular region, wherein the tubular region defines a center point. In addition, it is unclear whether the mirror in Englander discloses a mirror mounting support coupled within said tubular region and to the exterior front surface of the vehicle. The Examiner expresses no opinion as to whether these elements are described in Foster or Bateman. However, because Foster and

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<sup>2</sup> In re Fine, 837 F.2d at 1075.

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Batemen do not describe a crossview mirror, but instead disclose rear view mirrors, Applicant states that neither reference discloses a frame having a tubular region, wherein the tubular region defines a center point, and further wherein the mirror mounting support is coupled within the tubular region and to the exterior front surface of the vehicle. Thus, because the combination of Englander, Foster and Batemen does not disclose all of the elements of claim 1, the Examiner has failed to prove the third prong of the obviousness test in accordance with MPEP 2143 to establish a *prima facie* case of obviousness, and thus the rejection of claim 1 is improper and must be overturned.

Further, the Examiner has not established a *prima facie* case of obviousness because there is no motivation or suggestion in Englander to combine the teachings of Englander with either those of Foster or Bateman as the Examiner proposes. Englander is not concerned about the particular configuration of the mirror, the mirror support structure, and/or whether the mirror is electronically adjustable from inside the cab of the school bus. Englander is merely concerned with testing whatever type mirror assembly is provided, via artificial visualization, to ensure regulatory compliance with a predetermination certification standard. It matters not to the invention of Englander whether the mirror is a crossview mirror, a rearview mirror, a side mirror, or an electronically-controlled version of any of these mirrors, it only matters that whatever configuration of mirror is being tested according to the method of Englander to see if it meets a particular predetermined mirror mounting and visual orientation standard. Therefore, there is no motivation to modify Englander to include an electronic actuator and electronic controller system, contrary to the Examiner's position, because it serves no useful purpose in certifying regulatory compliance. For this reason alone, the rejection is improper and must be overturned.

In his Response to the Arguments Section in the April 11, 2006 Office Action, the Examiner made several inaccurate or otherwise misleading statements. First, the Examiner stated that Applicant did not specifically traverse the motivation to combine either Foster or Bateman with Englander. Applicant respectfully disagreed, and pointed the Examiner to the final paragraph of their previous response, in which

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the Applicant noted: "there is no motivation to modify Englander to include an electronic actuator and electronic controller system, contrary to the Examiner's position, because it serves no useful purpose in certifying regulatory compliance." To the extent that this was not a specific traversal, Applicant respectfully states herein that Applicant specifically traversed the Examiner determination that there is motivation to combine the references.

In addition, the Examiner stated that there is "no requirement that motivation to combine the teaching of references be found in the primary reference." However, Section 2143 of the Manual of Patent Examination and Procedure specifically states that "First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to those of ordinary skill in the art, to modify the reference or to combine reference teachings." Thus, contrary to the Examiner's position, there is a requirement that motivate must be found to combine any reference teaching, including the primary reference.

Moreover, the Examiner has repeatedly mischaracterized what is a properly combinable reference for motivational purposes. Section 2143.01 teaches that there are three possible sources for motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of person of ordinary skill in the art. *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998).

In applying the law to the facts in this case, one must first examine the nature of the problem in Englander, namely certifying mirror compliance using artificial visualization. Englander is not concerned about the particular configuration of the mirror, the mirror support structure, and/or whether the mirror is electronically adjustable from inside the cab of the school bus. Englander is merely concerned with testing whatever type mirror assembly is provided, via artificial visualization, to ensure regulatory compliance with a predetermination certification standard. It matters not to the invention of Englander whether the mirror is a crossview mirror, a rearview mirror, a side mirror, or an electronically-controlled version of any of these mirrors, it only matters that whatever configuration of mirror is being tested according to the method of Englander to see if it meets a particular predetermined mirror



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mounting and visual orientation standard. Further, and most important to this inquiry, it does not matter if, much less how, the mirror is moveable, much less moveable using electronic control. Englander is only concerned with testing the mirror in its present configuration. Thus for the Examiner to take the monumental leap to "solve" a problem that is not present in Englander is inappropriate. Contrary to the Examiner's conclusion, there is no motivation to add an electronic control element to the software based mirror testing method taught in Englander, and therefore the Examiner has not proven the first possible source for motivation as required in *In re Rouffet*.

With regards to the second and third source of motivation discussed in *In re Rouffet*, the Examiner stated support for motivation to combine would be that "motorized adjustment of the mirror is more convenient and quicker than manual adjustment." Applicant previously noted that "[W]here the references teach every element of the claimed invention, however without the motivation to combine, a rejection based on a *prima facie* case of obviousness was held improper. *In re Rouffet*, at 1357. Englander, as stated above, is directed to a method for testing mirrors, not to the inner workings or manipulation of the mirrors, and as such any modification that would be properly combinable should be directed towards improvements to the method, not to improvements to the mirror structure itself. Thus, even if the combination of Englander with either Foster or Bateman teaches all the elements, which we don't agree with as stated above, and even if the references can be combined to form the present invention by one of skill in the art, these facts are insufficient to support a *prima facie* case of obviousness in the absence of motivation to combine the references. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990); *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). As stated above, there is no motivation to alter Englander with either Foster or Bateman to arrive at the present invention, and thus the Examiner has failed to establish a *prima facie* case of obviousness to support the rejection of claim 1. While adding motorized control may be "convenient and "quicker," this is not the test for determining motivation to combine. Proper combinable references to Englander would be directed to improving the visualization method, not to providing a more convenient

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way to move a mirror during the certification 1 was once again respectfully requested.

In response to these arguments, on May 26, 2006, the Examiner indicated that the Applicant's arguments did not place the application in condition for allowance. The Examiner stated that: "the motivation to provide a vehicle mirror such as that shown in Englander with a motor to control the mirror's adjustment is found in either the secondary references or in the knowledge available to one having ordinary skill in the art who clearly recognizes the advantages of motorized adjustment." The Examiner further stated that his "specific reliance on Englander for showing the mirror design was primarily because of the explicit disclosure of compliance with this safety standard ("FMVSS 111")." The Examiner has once again, however, failed to establish any basis for utilizing Englander as an obviating reference in which to invalidate claim 1 of the present invention. Further, as discussed above, the combination of Englander, Bateman and Foster does not disclose all of the elements of claim 1 of the present invention.

Thus, the Examiner has not proven any of the three requirements for establishing a *prima facie* case of obviousness as required by MPEP 2143. As such, the rejection of claim 1 must be overturned. Reconsideration of claim 1 is respectfully requested.

### Claim 2

Claim 2 is a dependent claim of claim 1 that further limits the electronic controller to a servometer.

For reasons stated with respect to amended claim 1, which are incorporated herein, the combination of Englander, Bateman and Foster does not disclose all of the elements of claim 2 of the present invention, and thus the Examiner has not proven the third requirement for establishing a *prima facie* case of obviousness as required by MPEP 2143. Moreover, even if the disclosed references did teach all the elements, which the Applicants strongly disagree has been taught, the Examiner has failed to establish the first two requirements for establishing a *prima facie* case of





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obviousness, namely that there is motivation to combine the references as the Examiner proposes and that there is a reasonable expectation of success in combining the references to form the present invention as in claim 2. Reconsideration of claim 2 is thus respectfully requested.

**Claim 3**

Claim 3 is a dependent claim of claim 1 that further limits the electronic controller to a toggle switch type controller.

For reasons stated with respect to amended claim 1, which are incorporated herein, the combination of Englander, Bateman and Foster does not disclose all of the elements of claim 3 of the present invention, and thus the Examiner has not proven the third requirement for establishing a *prima facie* case of obviousness as required by MPEP 2143. Moreover, even if the disclosed references did teach all the elements, which the Applicants strongly disagree has been taught, the Examiner has failed to establish the first two requirements for establishing a *prima facie* case of obviousness, namely that there is motivation to combine the references as the Examiner proposes and that there is a reasonable expectation of success in combining the references to form the present invention as in claim 3. Reconsideration of claim 3 is thus respectfully requested.

**Claim 6**

Claim 6 is a dependent claim of claim 1 that further limits claim 1 wherein the arcuate mirror is limited in rotation about said center point to a predetermined angle relative to a centered position, wherein said predetermined angle is defined as a comparison of a relative orientation of said arcuate mirror at a first position as compared with said centered position, said first position corresponding to a clockwise-most allowable position or to a counterclockwise-most allowable position of said arcuate mirror, said centered position located midway between said clockwise-most allowable position and said counterclockwise-most allowable position along a horizontal plane.



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For reasons stated with respect to amended claim 1, which are incorporated herein, the combination of Englander, Bateman and Foster does not disclose all of the elements of claim 6 of the present invention, and thus the Examiner has not proven the third requirement for establishing a *prima facie* case of obviousness as required by MPEP 2143. Moreover, even if the disclosed references did teach all the elements, which the Applicants strongly disagree has been taught, the Examiner has failed to establish the first two requirements for establishing a *prima facie* case of obviousness, namely that there is motivation to combine the references as the Examiner proposes and that there is a reasonable expectation of success in combining the references to form the present invention as in claim 6. Reconsideration of claim 6 is thus respectfully requested.

**Claim 7**

Claim 7 is a dependent claim of claim 6 that further limits the rotation of the arcuate mirror to a predetermined angle is not greater than approximately 45 degrees counterclockwise or clockwise from said centered position.

For reasons stated with respect to amended claim 1, which are incorporated herein, the combination of Englander, Bateman and Foster does not disclose all of the elements of claim 7 of the present invention, and thus the Examiner has not proven the third requirement for establishing a *prima facie* case of obviousness as required by MPEP 2143. Moreover, even if the disclosed references did teach all the elements, which the Applicants strongly disagree has been taught, the Examiner has failed to establish the first two requirements for establishing a *prima facie* case of obviousness, namely that there is motivation to combine the references as the Examiner proposes and that there is a reasonable expectation of success in combining the references to form the present invention as in claim 7. Reconsideration of claim 7 is thus respectfully requested.

**VIII. Claims Appendix**

A copy of each of the claims involved in this appeal, namely claims 1-3, 6 and 7 is attached hereto as Appendix A.

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**IX. Evidence Appendix**

None.

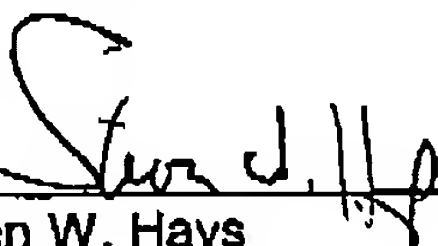
**X. Related Proceedings Appendix**

None.

**X. Conclusion**

For the foregoing reasons, Applicant respectfully requests that the Board direct the Examiner in charge of this examination to withdraw the rejections and pass claims 1-3, 6 and 7 to issuance.

**ARTZ & ARTZ, P.C.**

By:   
Steven W. Hays  
Reg. No. 41,823  
28333 Telegraph Road, Suite 250  
Southfield, MI 48034  
(248) 223-9500

Dated: August 15, 2006



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**APPENDIX A**

1. A crossover mirror assembly for mounting on an exterior front surface of a vehicle, the vehicle having a cab region, the crossover mirror assembly meeting a particular forward, rightward and leftward visual orientation in front of school buses as mandated by Federal Motor Vehicle Safety Standard 111 and comprising:

an arcuate mirror having a reflective surface;

a frame coupled to said arcuate mirror, said frame having a tubular region, said tubular region defining a center point;

a mirror mounting support coupled within said tubular region and to the exterior front surface of the vehicle;

an electronic actuator coupled to said arcuate mirror, said electronic actuator being actuated to swivel said arcuate mirror along an x-axis and about said center point; and

an electronic controller electrically coupled to said electronic actuator and contained within the cab region, said electronic controller controlling the actuation of said electronic actuator to move said arcuate mirror clockwise or counterclockwise along a horizontal plane about said center point.

2. The crossover mirror assembly of claim 1, wherein said electronic actuator comprises a servomotor.

3. The crossover mirror assembly of claim 2, wherein said electronic controller comprises a toggle switch type controller.

6. The crossover mirror assembly of claim 1, wherein said arcuate mirror is limited in rotation about said center point to a predetermined angle relative to a centered position, wherein said predetermined angle is defined as a comparison of a relative orientation of said arcuate mirror at a first position as compared with said centered position, said first position corresponding to a clockwise-most allowable position or to a counterclockwise-most allowable position of said arcuate mirror, said centered position located midway between said

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clockwise-most allowable position and said counterclockwise-most allowable position along a horizontal plane.

7. The crossover mirror assembly of claim 6, wherein said predetermined angle is not greater than approximately 45 degrees counterclockwise or clockwise from said centered position.

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Approved for use through 07/31/2006. OMB 0651-0031

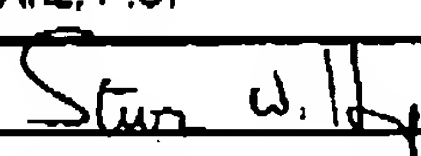
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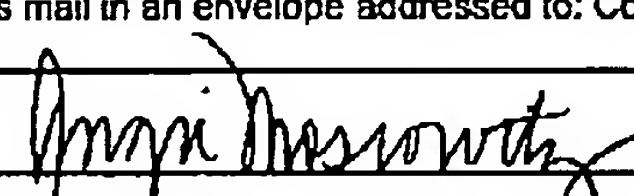
<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10/621,131	
	Filing Date	July 16, 2003	
	First Named Inventor	William Paul Schmidt	
	Art Unit	2872	
	Examiner Name	Mark A. Robinson	
Total Number of Pages in This Submission	39	Attorney Docket Number	ML 0166 PUS

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input checked="" type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):
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## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Artz & Artz, P.C.		
Signature			
Printed name	Steven W. Hays		
Date	August 15, 2006	Reg. No.	41,823

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<b>FEE TRANSMITTAL</b> <b>For FY 2006</b>		<b>Complete if Known</b>	
<i>Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4810).</i>		Application Number	10/621,131
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		Filing Date	July 16, 2003
<b>TOTAL AMOUNT OF PAYMENT</b> (\$) 250.00		First Named Inventor	William Paul Schmidt
		Examiner Name	Mark A. Robinson
		Art Unit	2872
		Attorney Docket No.	ML 0166 PUS

**METHOD OF PAYMENT** (check all that apply)

☐ Check  
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☒ Deposit Account  
 Deposit Account Number: 50-0476  
 Deposit Account Name: John A. Artz, P.C.

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

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**FEE CALCULATION** (All the fees below are due upon filing or may be subject to a surcharge.)

**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

**2. EXCESS CLAIM FEES**

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

**Total Claims**      **Extra Claims**      **Fee (\$)**      **Fee Paid (\$)**  
 \_\_\_\_\_ - 20 or HP = \_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_  
 HP = highest number of total claims paid for, if greater than 20.

**Indep. Claims**      **Extra Claims**      **Fee (\$)**      **Fee Paid (\$)**  
 \_\_\_\_\_ - 3 or HP = \_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_  
 HP = highest number of independent claims paid for, if greater than 3.

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
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**4. OTHER FEE(S)**

Description	Fees Paid (\$)
Non-English Specification, \$130 fee (no small entity discount)	
Other (e.g., late filing surcharge): <u>Appeal Brief Filing Fee - SMALL ENTITY</u>	\$250.00

**SUBMITTED BY**

Signature: <u>Steven W. Hays</u>	Registration No. (Attorney/Agent): 41,823	Telephone: 248-223-9500
Name (Print/Type): Steven W. Hays	Date: August 15, 2006	

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